

# Benchmark System

## Monitor Application

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## I Overview

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### A Why Monitor??

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- 1 Monitoring can be very helpful in a lot of instances. For mission critical applications it is very important to be able to rely on the SQL Server database to perform well at all times. It is also important to know that certain times of day, market conditions, office situations, and query sets are not overly stressing your SQL Server databases.
- 2 The Monitor is a passive monitoring system which collects information much the same as the SQL Monitor does. This information however is stored in an ACCESS database for future reference, breakdowns, filtration, etc.
- 3 This information is completely compatible with the information that is obtained when running the SQL Benchmark system. The SQL Benchmark system is a set of applications which can perform flexible, statistically accurate benchmarks of mission-critical database components to find problems, Or stress test modifications or designs.
- 4 The Monitor also includes the Blockage Hunter technology. This means that when blocks occur simultaneously on the server, all the information is locked and retrieved for analysis. So after the fact you can go back and see what processes, queries, tables, or views, were having blocks, or deadlocks. This is a lifesaver for debugging extensive client server applications.

### B Who uses the Monitor??

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- 1 Anyone who has unbenchmarked client server systems.
- 2 Anyone who wants more information about their SQL Database activity.
- 3 Anyone who needs comprehensive Blockage Hunter data about there SQL Databases.

## II Getting Started

### A Minimum Requirements

- 1 Microsoft Windows for Workgroups 3.11 or Microsoft NT 3.1
- 2 Local destination directory with full share privileges

### B Run Setup

- 1 The setup program is entitled SETUP.EXE.

### C Using the Monitor

- 1 Start the MONITOR.EXE by double-clicking the Monitor Icon created by the Setup Program.
- 2 Configure the Monitor with the appropriate parameters.
  - 1 Server Information - login information for the target server.
  - 2 Storage Database - the database you would like the results returned to at the end of the benchmark.
  - 3 Interval - The interval in seconds on which to sample the target.
- 3 This interval is saved in an .ini file and preloaded at the start of the monitor.
- 4 Monitor the information received by pressing the Status button. This will show the information being retrieved.
- 5 End the monitoring by pressing the End button. This will transfer the data to the storage database. If errors occur during this transfer, the transfer can be done manually by pressing the Manual Copy button.

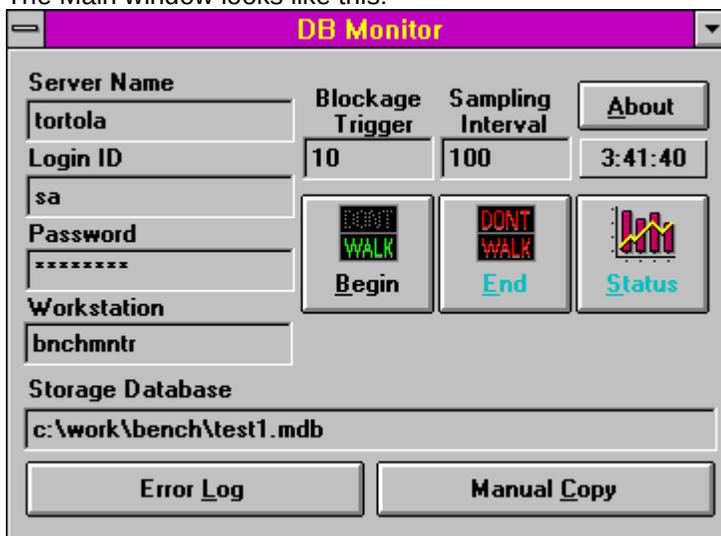
### D Viewing the Error Log

- 1 Pressing the Error Log button will bring up the log of errors for the time the executable has been running. This information is for user information only and is discarded when the executable is unloaded.

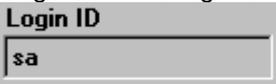
## III Configuring the Monitor

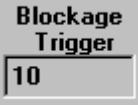
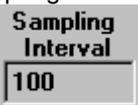
### A Main Window

- 1 The Main window is where the configuration of the Monitor is done.
- 2 The Main window looks like this:



- 3
- 4 The parts of the main window are as follows:
  - 1 The Server Name - The name of the SQL Server that you would like to monitor.

1. 
2. The Login ID - The login id used to access the target SQL Server.  

2. 
3. The Password - The password used to access the target SQL Server.
4. The Workstation Name - The workstation name used to access the target SQL Server.  

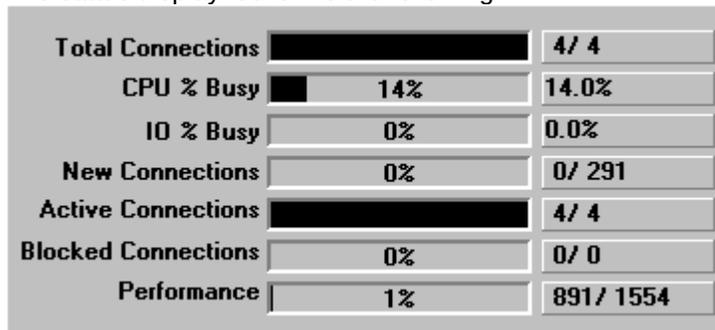
4. 
5. The Storage Database - The database to transfer data to after monitoring is completed.
6. The Blockage Trigger - The number of simultaneous blocks which must occur to dump the blockage hunter information to the database.  

6. 
7. Sampling Interval - the number of milliseconds to wait between queries.
8. View Error Log - loads the error log for viewing.  

8. 
9. Manual Copy - manual copies the local database tables to the storage database.
9. 
10. Begin - starts the monitoring process.
10. 
11. End - ends the monitoring process.
11. 
12. Status - Increases the viewing area to include the status information.
1. 

## IV Viewing Monitor Data

## A Status Display

- 1 The status display is shown by pressing the status button.
- 2 The status display looks like the following:



- 3
- 4 The primary purpose of this display is to give a snapshot of the results of the SQL DB Monitor.
- 5 The displays are in CURRENT/HIGHEST format. In the display, under Performance, the current value was 891 ms. The highest milliseconds ever returned by the queries was 1554.
- 6 All values show the changes over previous values except the %'s. These are accurate with changes already invoked.

## B Copying Data

- 1 While the transaction is prepared the application will wait for 4 seconds. This is illustrated by the informational message as follows:

2 Waiting for 4 seconds...

- 2 When copying the records the display will show the progress as follows:

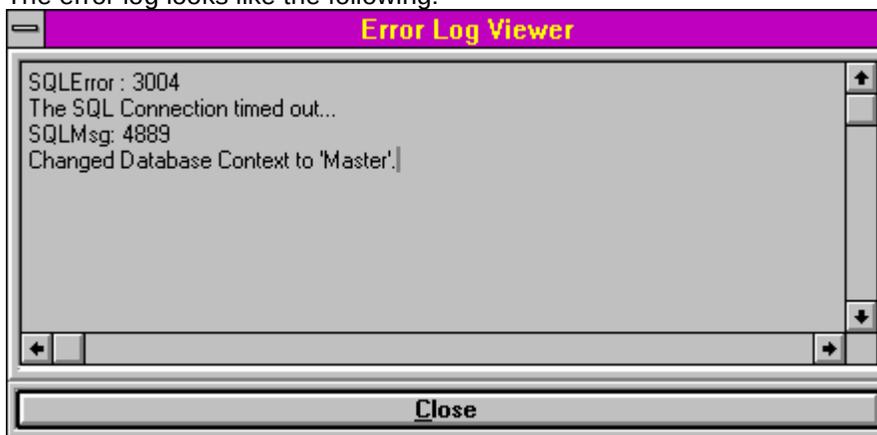
3 Copying Monitor records to share... 11%

- 3 If errors occur they will be logged and a message will state that the transfer may have failed.
- 4 If this happens use the manual copy button to transfer the results.

## V Error Viewing

### A The Error Log

- 1 The error log records all errors that happen during program execution.
- 2 To view these errors press the view errors button.
- 3 The error log looks like the following:



- 4